SANTA CRUZ BIOTECHNOLOGY, INC.

Rev-erbα (m): 293T Lysate: sc-125901

BACKGROUND

Orphan nuclear receptors NR1D1 and NR1D2 are more commonly designated Rev-erbα and Rev-erbβ, respectively. Rev-erbα acts as a receptor for triiodothyronine and is composed of three domains, a modulating N-terminal domain, a C-terminal steroid binding domain and a DNA-binding domain. Rev-erbβ binds to the sequences 5'-AATGTAGGTCA-3' and 5'-ATAACTAGGTCA-3' and acts as a competitive repressor of RORα function. It interacts with NCoA-5 co-activator which leads to an increase in transcription. Both Rev-erbα and Rev-erbβ are nuclear proteins belonging to the nuclear hormone receptor family of proteins.

REFERENCES

1. Laudet, V., et al. 1991. Genomic organization of the human thyroid hormone receptor α (c-erbA-1) gene. Nucleic Acids Res. 19: 1105-1112.
2. Dumas, B., et al. 1995. A new orphan member of the nuclear hormone receptor superfamily closely related to Rev-erb. Mol. Endocrinol. 8: 996-1005.
3. Zhao, Q., et al. 1998. Structural elements of an orphan nuclear receptor-DNA complex. Mol. Cell 1: 849-861.
4. Sauve, F., et al. 2001. CIA, a novel estrogen receptor coactivator with a bifunctional nuclear receptor interacting determinant. Mol. Cell. Biol. 21: 343-353.
5. Migita, H., et al. 2004. Rev-erbα upregulates NFκB-responsive genes in vascular smooth muscle cells. FEBS Lett. 561: 69-74.
6. Laitinen, S., et al. 2005. The role of the orphan nuclear receptor Rev-erbα in adipocyte differentiation and function. Biochimie 87: 21-25.
7. Pircher, P., et al. 2005. Aberrant expression of Myosin isoforms in skeletal muscles from mice lacking the Rev-erbAα orphan receptor gene. Am. J. Physiol. Regul. Integr. Comp. Physiol. 288: R482-R490.

CHROMOSOMAL LOCATION

Genetic locus: Nr1d1 (mouse) mapping to 11 D.

PRODUCT

Rev-erbα (m): 293T Lysate represents a lysate of mouse Rev-erbα transfected 293T cells and is provided as 100 µg protein in 200 µl SDS-PAGE buffer.

APPLICATIONS

Rev-erbα (m): 293T Lysate is suitable as a Western Blotting positive control for mouse reactive Rev-erbα antibodies. Recommended use: 10-20 µl per lane.

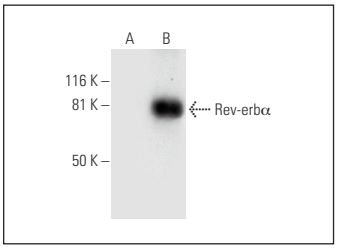
Control 293T Lysate: sc-117752 is available as a Western Blotting negative control lysate derived from non-transfected 293T cells.

Rev-erbα (E-12): sc-393215 is recommended as a positive control antibody for Western Blot analysis of enhanced mouse Rev-erbα expression in Rev-erbα transfected 293T cells (starting dilution 1:100, dilution range 1:100-1:1,000).

RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgGκ BP-HRP: sc-516102 or m-IgGκ BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker™ Molecular Weight Standards: sc-2035, UltraCruz® Blocking Reagent: sc-516214 and Western Blotting Luminol Reagent: sc-2048.

DATA



Rev-erbα (E-12): sc-393215. Western blot analysis of Rev-erbα expression in non-transfected: sc-117752 (**A**) and mouse Rev-erbα transfected: sc-125901 (**B**) 293T whole cell lysates.

STORAGE

Store at -20° C. Repeated freezing and thawing should be minimized. Sample vial should be boiled once prior to use. Non-hazardous. No MSDS required.

RESEARCH USE

For research use only, not for use in diagnostic procedures.

PROTOCOLS

See our web site at www.scbt.com for detailed protocols and support products.